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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,114	06/25/2004	Satoshi Hayakawa	204552033100	7909

7590 09/22/2005

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EXAMINER

CHEN, VIVIAN

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,114

Applicant(s)

HAYAKAWA ET AL.

Examiner

Vivian Chen

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 6, 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/2004; 11/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over:

PIPER ET AL (US 6,294,264) or PIPER ET AL (US 6,500,505);

in view of KUCKERTZ ET AL (US 2002/0012756).

PIPER ET AL '264 and '505 discloses a heat-shrinkable film containing a polyester layer, wherein the film has a typical shrinkage of 5-150% at 85 C, wherein the film can be surface treated with corona discharge or plasma to increase adhesion. (PIPER ET AL '264, line 55, col. 10 to line 5, col. 11; line 65, col. 11 to line 20, col. 12; line 30-36, col. 13; line 54, col. 14 to line 35, col. 15) (see corresponding parts of PIPER ET AL '505) However, the reference does not explicitly disclose the recited nitrogen content.

KUCKERTZ ET AL discloses that it is well known in the art to surface treat polymeric films to increase adhesion using corona discharge or plasma with nitrogen gas wherein the film surface has a typical nitrogen atom content of 0.9-2.2% and a typical surface tension of 50-64 mN/m. The reference also discloses that it is well known in the art to wind up polymeric films in rolls during/after manufacture. (paragraphs 0022, 0030; Table 1).

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It would have been obvious to a person of one of ordinary skill in the art at the time the invention was made would have used a known surface treatment as disclosed in KUCKERTZ ET AL on the film disclosed in the PIPER ET AL references in order to increase the adhesion characteristics. It also would have been obvious to maximize the uniformity of the surface treatment (claim 2) in order to undesirable variations of surface properties. One of ordinary skill in the art would have selected the roll size (claim 7) depending on the specific end application. It would have been obvious to use known sealing layers and select sealing conditions to adjust the seal strength (claim 9) depending on the requirements of a given usage (e.g., durability, peelable seals, etc.). One of ordinary skill in the art would have used conventional additives to obtain and select the optimum degree of surface roughness (claim 10) in order to obtain the film handling properties and/or visual characteristics for specific applications. It is well known in the art to incorporate antistatic additives or coatings in heat-shrinkable films to increase surface conductivity (claim 11) in order to improve film handling and/or prevent dust accumulation.

Allowable Subject Matter

3. Claim 6, 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to disclose or suggest a heat-shrinkable film having the recited heat shrinkage and the recited amounts of nitrogen atoms, wherein the film also has: (1)

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the recited oxygen concentration on the film surface (claim 6); (2) the recited decrease in nitrogen content (claim 8).

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 18, 2005


Vivian Chen
Primary Examiner
Art Unit 1773